

Request for Funding

Lessard-Sams Outdoor Heritage Council Fiscal Year 2015 / ML 2014

Program or Project Title: Duluth 2012 Flood: Stream Habitat Restoration Program

Funds Requested: \$5,667,500

Manager's Name: Kate Kubiak

Title: Conservation Leader - Specialist

Organization: South St. Louis SWCD

Street Address: 215 North 1st Avenue East, Rm 301

City: Duluth, MN 55802

Telephone: 218-723-4867

E-Mail: R.Boheim@southstlouisswcd.org

Organization Web Site: <http://www.southstlouisswcd.org/index.html>

County Locations: No Counties Listed

Ecological Planning Regions:

- Northern Forest

Activity Type:

- Restore

Priority Resources Addressed by Activity:

- Habitat

Abstract:

Responding to the fundamentally changed nature of trout streams in the wake of Duluth and NE Minnesota's 2012 floods, a coalition organizations and agencies prioritize habitat recovery through a comprehensive stream habitat restoration program.

Design and Scope of Work:

The flood of 2012 had devastating consequences for the trout streams of Duluth. Channels shifted location or down cut, sediment and rocks filled aquatic habitats in pools and riffle areas, and steep eroding banks were created. Federal and state financial assistance helped repair infrastructure and private property damage. However, the task of restoring fish habitat and public use of these resources remains.

This proposal targets restoration of seven trout streams in the Duluth Metropolitan area. Stream projects included in the proposal were selected based on 1) public ownership, 2) trout fishery potential, and 3) habitat requirements. To design and accomplish restoration projects, the Stream Habitat Restoration Program (SHRP) will draw upon the expertise of a coalition of partners including the PCA, DNR, and Trout Unlimited. Participants with expertise in stream habitat, public involvement, watershed and water quality management, civil engineering, and fisheries biology and ecology will be heavily engaged in the projects. Because of the scope of the program, design and construction oversight work will be contracted to private consultants with oversight by project partners. Public participation will be facilitated using non-LSOHF funds.

Stream projects will be prioritized based on available funding, resource need, and potential to support a coldwater fishery. Although no additional leverage is currently allocated, project partners will work to secure funds from

other sources (e.g. Clean Water Fund, Great Lakes Restoration Initiative) that will allow completion of all stream projects listed, and additional sites if possible.

Restoration of the trout streams of Duluth will create quality trout fishing opportunities in an urban setting. These unique resources will allow fishing where people live, including access for kids to fish in their own neighborhoods, fostering a greater connection to the natural environment of Duluth.

Proposed projects:

1. A. Stewart Creek, Mile 0.0 to 0.9, Estimated Restoration (\$370,000)

A large culvert failure at the Munger Trail crossing deposited a substantial quantity of sediment in this reach. MN DNR Parks and Trails plans to replace the trail bridge using their own funds, creating an opportunity for this proposal to restore approximately 150 feet of natural stream channel beneath the bridge and eliminate a barrier to fish passage. Vertical eroding banks throughout this reach will also be stabilized. When MNDOT reconstructs the culvert under Highway 23, an opportunity exists to daylight and restore an additional 150 feet of stream.

1) Construction Contracts \$300,000, 2) Grant Administration \$15,000, 3) Engineering and Design \$40,000, 4) Construction Oversight \$15,000

B. Kingsbury Creek, Mile 0.0 to 1.9, Estimated Restoration (\$250,000)

This stream reach has been severely impacted by sediment deposition and erosion. While a portion of this reach (approximately 1500') will be repaired, additional work is needed to permanently stabilize it. A large bluff slump on the upstream end of the reach is contributing to sediment loading and stream instability. Kingsbury Creek has some naturally reproducing brown trout, and is managed with stocked brook and brown trout.

1) Construction Contracts \$200,000, 2) Grant Administration \$10,000, 3) Engineering and Design \$30,000, 4) Construction Oversight \$10,000

C. Keene Creek, Mile 0.3 to 1.5, (\$910,000)

Three culvert failures during the flood contributed significant quantities of sediment to the channel. The city is replacing culverts with properly-sized ones, but restoration of stream habitat remains. The stream will need be relocated during this project to avoid several electrical towers with footings directly in the stream, currently contributing to log jams and bank erosion. Keene Creek supports a wild brook trout fishery throughout this reach, along with stocked brown trout.

1) Construction Contracts \$750,000, 2) Grant Administration \$15,000, 3) Engineering and Design \$110,000, 4) Construction Oversight \$35,000

D. Coffee Creek, Mile 1.2 to 1.6, (\$250,000)

A section of this reach was part of a small impoundment prior to the 2012 flood. Flood flows cut through the dam embankment and created an extremely unstable channel through the bed of the former pond. In addition, the new channel cut into a steep embankment causing additional erosion/slumping. This reach will be restored to a shaded, free flowing natural channel. Coffee Creek supports a wild brook trout population.

1) Construction Contracts \$200,000, 2) Grant Administration \$10,000, 3) Engineering and Design \$30,000, 4) Construction Oversight \$10,000

E. Chester Creek, Mile 1.3 to 2.0, (\$490,000)

This section of Chester Creek flows through Chester Park and was impounded prior to the 2012 flood. The dam failed during the flood, leaving behind an unstable channel with highly erodible banks. A properly size stream

channel with enhanced fish habitat will be created to address ongoing erosion problems and restore fish habitat. Tree planting will replace those lost during the flood to help restore cooler stream temperatures. Chester Creek contains naturally reproducing brook trout in its upper reaches, and is managed with stocked brook trout through the park.

1) Construction Contracts \$400,000, 2) Grant Administration \$20,000, 3) Engineering and Design \$55,000, 4) Construction Oversight \$15,000

F. Amity Creek, Mile 2.4 to 3.3 and East Amity Creek Mile 0.0 to 0.3 (\$370,000)

Amity Creek suffered from instability and habitat loss prior to 2012 due to past land use alterations. The flood exacerbated these conditions and damaged a recently restored stream section. Recovery involves channel relocation, bank stabilization and habitat creation. Amity Creek supports a wild brook trout fishery.

1) Construction Contracts \$300,000, 2) Grant Administration \$15,000, 3) Engineering and Design \$40,000, 4) Construction Oversight \$15,000

G. Mission Creek, Mile 0.0 to 2.0 (\$1,800,000)

This stream was dramatically impacted by the 2012 flood. The channel scoured by the flood includes high eroding banks, several large slumps, and tons of deposited sediment. In addition, an old dam/debris barrier that is degrading stream habitat must be removed. Mission Creek has historically been utilized by anadromous brown trout in accessible reaches, and wild brook trout are being reintroduced by MNDNR. Restoration will require creation of a new stream channel with improved trout habitat, and addressing ongoing erosion areas. The Minnesota Department of Transportation (MNDOT) is working with the project team to properly size the concurrent Highway 23 bridge replacement.

1) Construction Contracts \$1,500,000 2) Grant Administration \$50,000 3) Engineering and Design \$250,000

Planning

MN State-wide Conservation Plan Priorities:

- H2 Protect critical shoreland of streams and lakes
- H6 Protect and restore critical in-water habitat of lakes and streams
- H7 Keep water on the landscape
- LU6 Reduce Upland and gully erosion through soil conservation practices

Plans Addressed:

- Lower St. Louis River Habitat Plan
- Minnesota DNR Strategic Conservation Agenda
- National Fish Habitat Action Plan
- Lake Superior Basin Plan, Lake Superior Lakewide Management Plan

LSOHC Statewide Priorities:

- Are ongoing, successful, transparent and accountable programs addressing actions and targets of one or more of the ecological sections
- Attempts to ensure conservation benefits are broadly distributed across the LSOHC sections
- Ensures activities for "protecting, restoring and enhancing" are coordinated among agencies, non profits and

others while doing this important work; provides the most cost-effective use of financial resources; and where possible takes into consideration the value of local outreach, education, and community engagement to sustain project outcomes

- Leverage effort and/or other funds to supplement any OHF appropriation
- Produce multiple enduring conservation benefits
- Provide Minnesotans with greater public access to outdoor environments with hunting, fishing and other outdoor recreation opportunities
- Restore or enhance habitat on permanently protected land
- Use a science-based strategic planning and evaluation model to guide protection, restoration and enhancement, similar to the United States Fish and Wildlife Service's Strategic Habitat Conservation model

LSOHC Northern Forest Section Priorities:

- Protect shoreland and restore or enhance critical habitat on wild rice lakes, shallow lakes, cold water lakes, streams and rivers, and spawning areas

Relationship to Other Constitutional Funds:

- Environmental and Natural Resource Trust Fund
- Clean Water Fund
- Parks and Trails Fund

The Stream Habitat Restoration Program (SHRP) is a local adaptation of the Clean Water Council and Clean Water Fund's (CWF) approach to restoration and protection of Minnesota's watersheds and surface water quality. CWF support underlies the large scale efforts by state natural resource agencies and their partners to assess state-wide watershed conditions, to identify stressors and to develop and implement strategies to restore water quality and aquatic habitat. The Duluth 2012 Flood: Stream Habitat Restoration Program (SHRP) is simply a localized version of the same approach, with an emphasis on restoring heavily damaged cold-water streams and watersheds draining into the St. Louis River Area of Concern (AOC) and Lake Superior. The SHRP will serve as the framework and core of this new effort. However, the true measure of success for this local collaborative model will be realized when project partners recognize the need, and apply for funds from the Trails and Parks Fund, the CWF and other federal and state funding sources.

Accelerates or Supplements Current Efforts:

The storm of June 19th and 20 completely altered physical conditions in Duluth area streams. As such, this situation amounts to resetting the physical and biological conditions of these cold-water stream systems. Much of the modeling and assessment work completed to date will have to be repeated. New surveys will have to be undertaken to assess cold-water habitat availability, channel dimensions, stream flow characteristics and water quality conditions. Equipment will have to be replaced and ongoing assessment and evaluation restarted. Some studies and restoration work completed under the auspices of the St. Louis River Remedial Action Plan (RAP) and Miller Creek Total Maximum Daily Load may have to be revisited and revised.

On a positive note, this storm also provides an unprecedented opportunity for natural resource agencies and partners to implement low impact development techniques and strategies to reduce the likelihood of severe property and ecological damage from another large scale precipitation event. This project does build on a highly successful history of partners working together to restore the St. Louis River AOC and to protect the gem of the Great Lakes, Lake Superior.

Sustainability and Maintenance:

The collaboration and good will engendered by the SHRP will pay dividends into the future. The SHRP will serve as a magnet for scientific research and innovation; which, in turn, drives entrepreneurship. This critical mass will likely spawn spin-off businesses, research ventures and organizations that generate wealth and provide employment. These dividends will essentially turn an ecological and social disaster into an opportunity for new growth and scientific and technical development. Maintaining the investment of the SHRP will be part of an adaptive management strategy as the project moves into maintenance mode (likely 10 to 15 years from now). The SHRP will simply enhance a collaborative atmosphere that has existed for years in the Duluth area. Collaborators will continue to share resources, data and expertise through programs like the Natural Resource

Research Institute's Lake Superior Streams web portal and the Regional Storm-water Protection Team. Evaluation and ongoing oversight will be paid for by a combination of state and federal sources as part of their mandates under the Great Lakes Water Quality Agreement, the Clean Water Act, the Coastal Zone Management Act, the Safe Drinking Water Act and a wide variety of state and local statutes.

Permanent Protection:

Is the activity on permanently protected land and/or public waters per MS 103G.005, Subd. 15? - Yes
(County/Municipal, City owned land)

Accomplishment Timeline

Activity	Approximate Date Completed
Develop Project Work Plan	10-31-2014
Organize the Stream Habitat Restoration Program (SHRP), Define Partner Roles, Communication Methods	11-30-2014
Scope Out Projects, Identify Data and Fieldwork Needs	05-30-2014
Complete Field Work, Data Collection and Surveying (Topographic Surveys, Geomorphic Assessments, Hydraulic Parameters)	12-30-2014
Analyze Data and Fieldwork	02-28-2015
Develop Preliminary Construction - Restoration Designs	06-30-2015
Incorporate Design Changes into the Construction Plans	09-30-2014
Develop Engineering Plans (Specifications, Plan Sheets)	03-31-2015
Prepare Environment Assessment Worksheet, Apply for Permits	06-30-2015
Publish a River Restoration Request for Proposals	08-31-2015
Select and Award Contracts	12-31-2015
Carry Out Restoration Work	12-31-2019
Inspect and Photo Document Work	05-31-2019
Evaluate Restoration Effectiveness and Develop Stage II Projects and Adaptive Strategies	05-31-2019

Outcomes

Programs in the northern forest region:

- Improved aquatic habitat indicators *Increasing fish production and survivability (population per unit area).*
- Increased availability and improved condition of riparian forests and other habitat corridors *Percent riparian corridor in forest.*
- Greater public access for wildlife and outdoors-related recreation *Reduction in shoreline hazards that limit physical access and fishing success (creel census, number of residents participating or buying licenses to fish locally)*
- Improved availability and improved condition of habitats that have experienced substantial decline *Improved connectivity between stream sections (total number of physical barriers removed that improve connectivity and fish passage)*
- Reduced potential for flooding from obstructions (percent of shoreline areas subject to flooding)

Reduced property damage due to bank failure, erosion and channel movement (reduction in future property damage claims)

Budget Spreadsheet

Total Amount of Request: \$5,667,500

Budget and Cash Leverage

Budget Name	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$450,000	\$350,000		\$800,000
Contracts	\$4,150,000	\$2,000,000	EPA, CORPS, USDA	\$6,150,000
Fee Acquisition w/ PILT	\$0	\$0		\$0
Fee Acquisition w/o PILT	\$0	\$0		\$0
Easement Acquisition	\$0	\$0		\$0
Easement Stewardship	\$0	\$0		\$0
Travel	\$50,000	\$0		\$50,000
Professional Services	\$830,000	\$0		\$830,000
Direct Support Services	\$157,500	\$0		\$157,500
DNR Land Acquisition Costs	\$0	\$0		\$0
Capital Equipment	\$0	\$0		\$0
Other Equipment/Tools	\$7,000	\$0		\$7,000
Supplies/Materials	\$23,000	\$0		\$23,000
DNR IDP	\$0	\$0		\$0
Total	\$5,667,500	\$2,350,000	-	\$8,017,500

Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Project Manager	1.00	5.00	\$450,000	\$350,000	Volunteers, Local Govt Staff	\$800,000
Total	1.00	5.00	\$450,000	\$350,000	-	\$800,000

Output Tables

Table 1. Acres by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	0	0	0	42	42
Protect in Fee with State PILT Liability	0	0	0	0	0
Protect in Fee W/O State PILT Liability	0	0	0	0	0
Protect in Easement	0	0	0	0	0
Enhance	0	0	0	0	0
Total	0	0	0	42	42

Table 2. Total Requested Funding by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	\$0	\$0	\$0	\$5,667,500	\$5,667,500
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$0
Enhance	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$5,667,500	\$5,667,500

Table 3. Acres within each Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	0	0	0	0	42	42
Protect in Fee with State PILT Liability	0	0	0	0	0	0
Protect in Fee W/O State PILT Liability	0	0	0	0	0	0
Protect in Easement	0	0	0	0	0	0
Enhance	0	0	0	0	0	0
Total	0	0	0	0	42	42

Table 4. Total Requested Funding within each Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	\$0	\$0	\$0	\$0	\$5,667,500	\$5,667,500
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$0	\$0
Enhance	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$5,667,500	\$5,667,500

Table 5. Target Lake/Stream/River Miles

7 miles

Parcel List

Section 1 - Restore / Enhance Parcel List

St. Louis

Name	TRDS	Acres	Est Cost	Existing Protection?
Amity Creek	05113232	9	\$200,000	Yes
Amity Creek	05113231	5	\$100,000	Yes
Chester Creek	05014215	8	\$400,000	Yes
Coffee Creek	05014232	1	\$65,000	Yes
Coffee Creek	05014229	3	\$135,000	Yes
Keene Creek	04915212	3	\$200,000	Yes
Keene Creek	04914218	10	\$500,000	Yes
Keene Creek	04915213	0	\$50,000	Yes
Kingsbury Creek	04915214	11	\$300,000	Yes
Kingsbury Creek	04915213	9	\$200,000	Yes
Mission Creek	04815208	4	\$300,000	Yes
Mission Creek	04815205	12	\$800,000	Yes
Mission Creek	04815206	8	\$600,000	Yes
Mission Creek	04915231	3	\$300,000	Yes
Stewart Creek	04915227	3	\$100,000	Yes
Stewart Creek	04915226	7	\$200,000	Yes

Section 2 - Protect Parcel List

No parcels with an activity type protect.

Section 2a - Protect Parcel with Bldgs

No parcels with an activity type protect and has buildings.

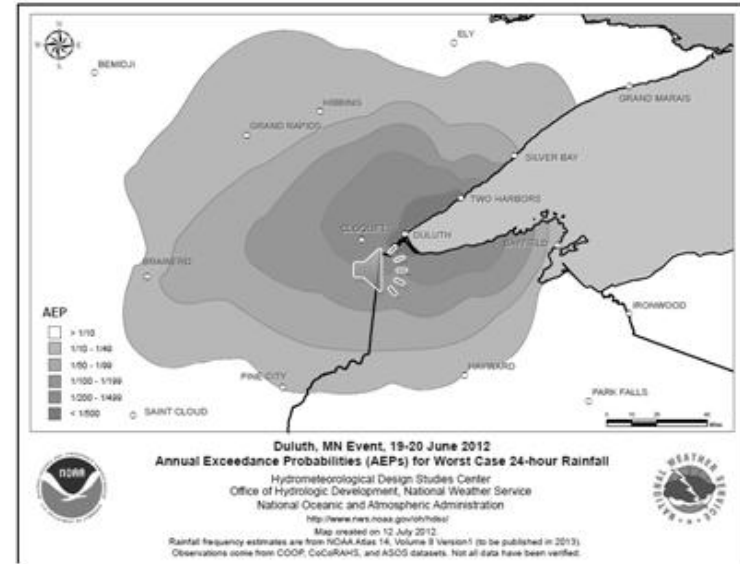
Section 3 - Other Parcel Activity

No parcels with an other activity type.

- Duluth Stream Habitat Restoration Program -
Restoring Stream Habitat in the Aftermath of the 2012 Flood

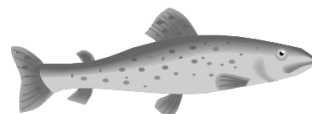


The Storm Event



Star-Tribune Newspaper

Chester Creek – Looking Up at Chester Park Drive



Lake Superior Sediment Plume



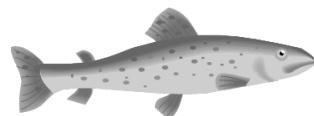
Star-tribune Newspaper Newspaper

(A). Stewart Creek

Downstream End of Culvert



(B). Kingsbury Creek



Kingsbury Creek Flows Through Lake Superior Zoo

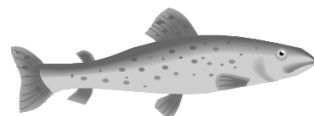


(C). Keene Creek

Electrical Tower in Stream Channel



(D). Coffee Creek



Coffee Creek Below the Impoundment

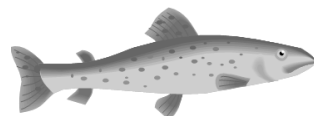
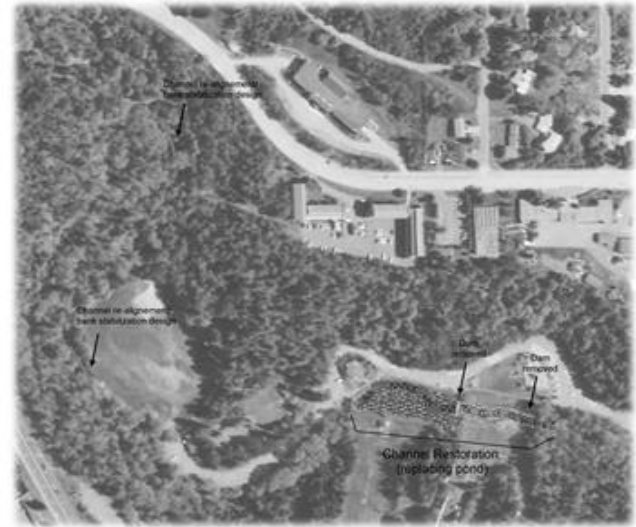


(E). Chester Creek

Chester Creek Bowl - Chester Park



Chester Creek Restoration Sketch Plan - Chester Park



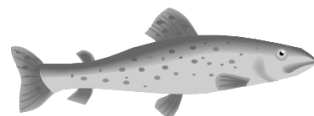
(F) Amity Creek

East Amity Branch Slumping Clay Bank



(G) Mission Creek

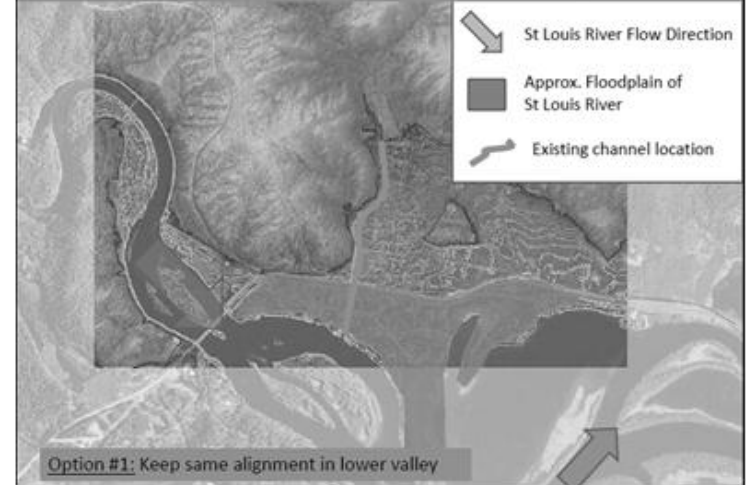
Old Dam Structure Remains



Channel Changed Locations



Mission Creek - Lower Valley



Mission Creek -2013 Channel Restoration Alignment (2 Site options)

March 2013
Stream Team Site Assessment



Mission Creek, 'East Route' Conceptual plan

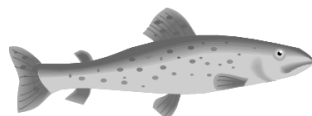
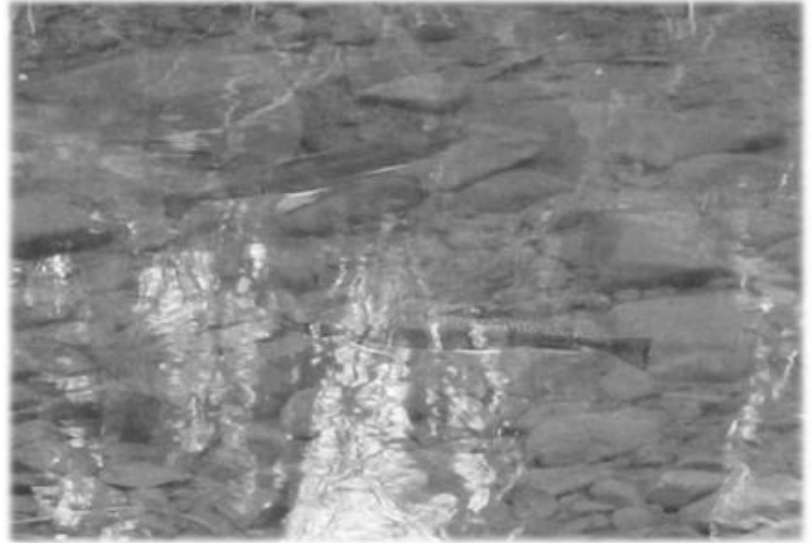
Proposed Route

Benefits:

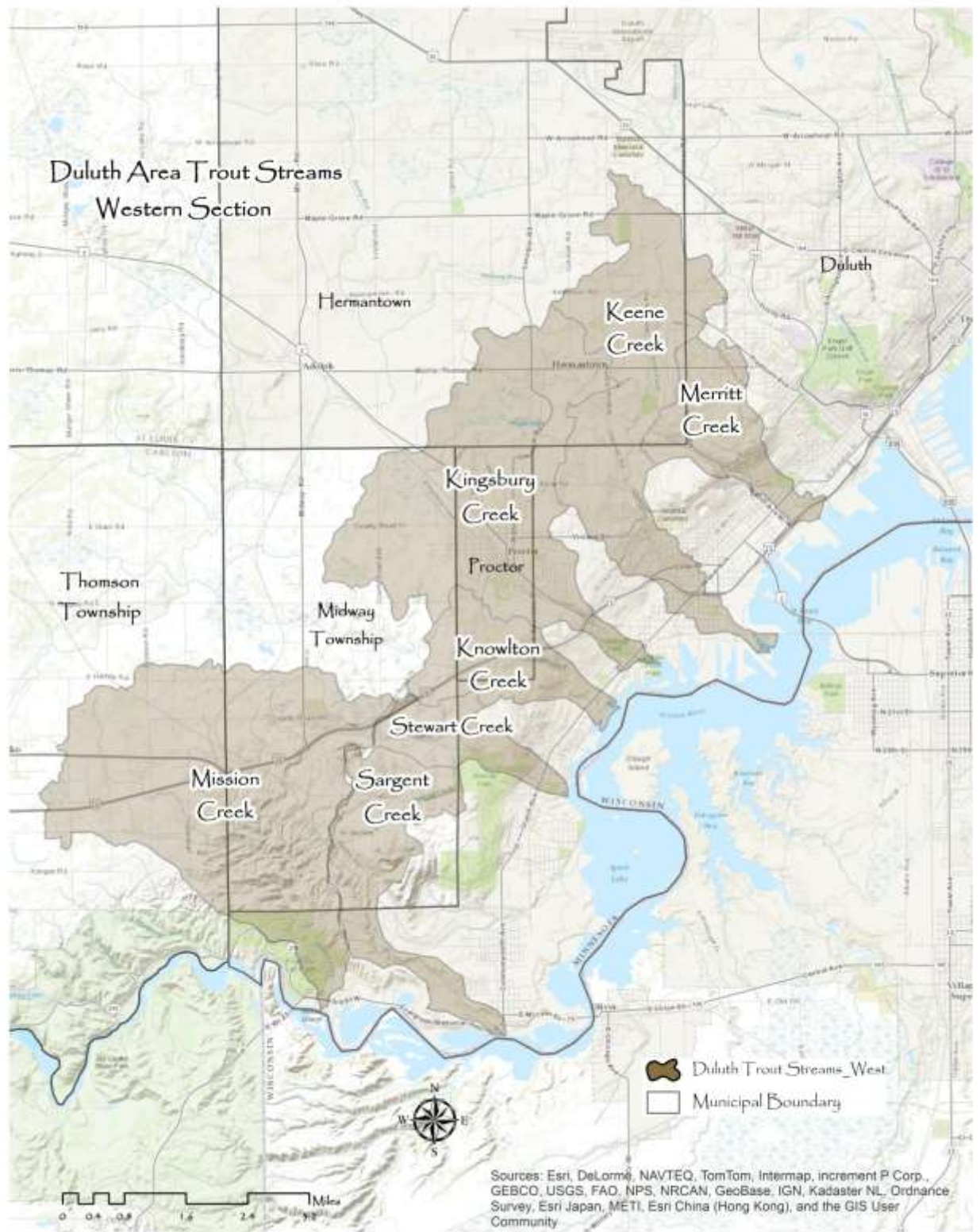
- increase slope through town
- Optimizes tax forfeited properties
- eliminate mass wasting (valley wall)
- allows historical bridge to remain in place
- improved channel exit efficiency into St Louis
- Utilizes inactive alluvial fan topography



Excellent Stretches of Stream Habitat Still Exist

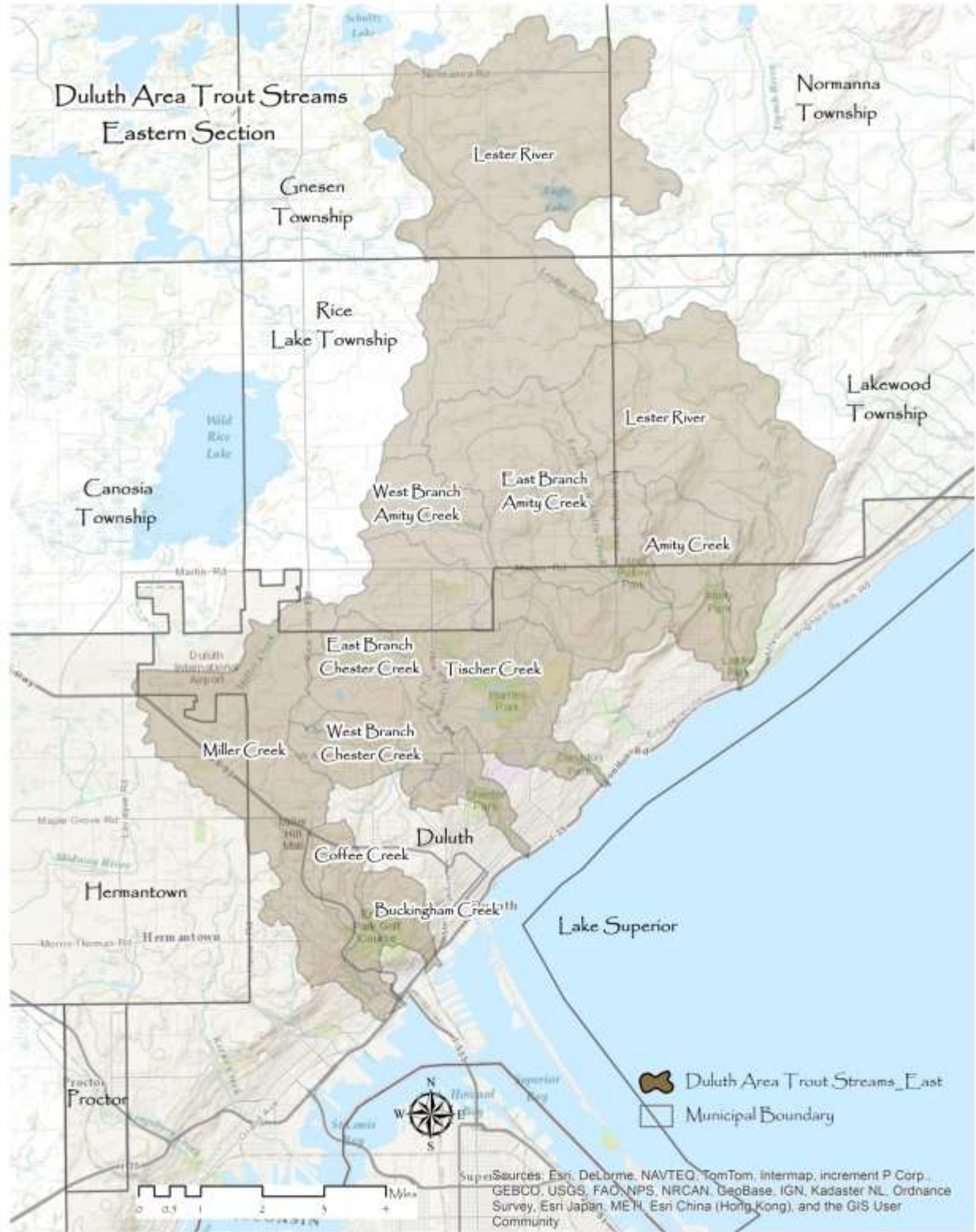




Duluth Area Trout Streams Western Section

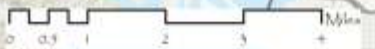


Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAD, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), and the GIS User Community

Duluth Area Trout Streams Eastern Section



 Duluth Area Trout Streams_East
 Municipal Boundary



SuperSources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, MEN, Esri China (Hong Kong), and the GIS User Community



City of Duluth
Don Ness, Mayor

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An Equal Opportunity Employer

June 13, 2013

Lessard-Sams Outdoor Heritage Council
100 Rev. Dr. Martin Luther King Jr. Blvd
State Office Building, Room 95
St. Paul, MN 55155

On behalf of the City of Duluth, I am writing to express strong support of the proposal submitted by the South St. Louis Soil and Water Conservation District for funding under the Lessard Sams Outdoor Heritage Fund. The application "*Duluth 2012 Flood: Stream Habitat Restoration Project*" is requesting funding which will significantly assist in restoring and conserving the invaluable Lake Superior Basin water resources.

Several areas in the City of Duluth and surrounding areas were devastated by the unprecedented flooding of June 19 and 20th 2012 – which included significant damage to several streams that were already impaired. In addition to storm water runoff and erosion, water quality will continue to be an issue in trout streams and nearby shore waters of Lake Superior.

I am confident in this proposal as it involves an impressive coalition of partners including: City of Duluth, DNR, MPCA, South St. Louis Soil and Water Conservation District, and Trout Unlimited. Together with these partners and the Lessard-Sams Outdoor Heritage Council, the City of Duluth is committed to stabilizing and restoring habitat in our hardest hit cold-water streams, as well as restoring impacted waters throughout the community. This critical funding will help provide our community with an opportunity to focus on specific stream reaches where connectivity, channel and bank stability, water quality and fish habitat have been compromised. The projects will be site specific and unique to the circumstances of each stream. Round one priority streams include: Chester Creek, Mission Creek, Keene Creek, Stewart Creek, East Branch of Amity Creek, Kingsbury Creek and Coffee Creek.

For all the reasons above, I encourage your support of this application. Please feel free to contact me if you have any questions or if there are additional ways I can be of assistance. Thank you for your consideration.

Sincerely,

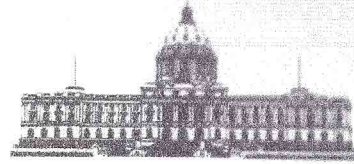
Don Ness
Mayor

ROGER J. REINERT

State Senator
Duluth

325 Capitol Building
75 Rev Dr Martin Luther King Jr Blvd
St Paul, MN 55155-0001

Office: (651) 296-4188
sen.roger.reinert@senate.mn



Senate

State of Minnesota

June 13, 2013

Lessard-Sams Outdoor Heritage Council
100 Rev. Dr. Martin Luther King Jr. Blvd.
State Office Building, Room 95
St. Paul, MN 55155

Dear Council Members:

I am writing to express my support for the Duluth 2012 Flood: Stream Habitat and Restoration Program (SHRP) proposal being submitted by the South St. Louis Soil and Water Conservation District. This project would have a direct and necessary impact on restoring our cold-water streams in and around Duluth.

Last year's storm completely altered physical conditions in Duluth area streams. Much remains to be done to stabilize and restore habitat in our community's hardest hit streams. The Duluth 2012 Flood: SHRP would work in conjunction with larger scale efforts by state natural resource agencies to assess state-wide watershed conditions, to identify stressors, and to develop and implement strategies to restore water quality and aquatic habitat. Additionally, the program would offer the opportunity to implement strategies to reduce future large scale flood damage.

I strongly encourage your consideration of the Duluth 2012 Flood: SHRP proposal. This program will fill a critical need in stabilizing and restoring the resource values of Duluth's streams. Please feel free to contact me with any questions that arise.

Sincerely,

A handwritten signature in black ink, appearing to read 'Roger Reinert', written over a faint circular stamp.

Roger J. Reinert
State Senator
District 7 – Duluth



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Committees: Taxes • Transportation • Commerce

Minnesota Department of Natural Resources

500 Lafayette Road • St. Paul, MN • 55155-40



June 14, 2013

Mr. R.C. Boheim
South Saint Louis Soil and Water Conservation District
215 North First Avenue East
Duluth, Minnesota 55802-2058

Dear Mr. Boheim:

I am pleased to write this letter on behalf of the Minnesota Department of Natural Resources (DNR) in support of your proposal to the Lessard-Sams Outdoor Heritage Fund for habitat work on streams in the city of Duluth. As you know, the flood of 2012 seriously degraded habitat in the trout streams of Duluth through major erosion and deposition of sediment. Your proposal has the potential to address these impacts by restoring stable stream channels, addressing ongoing erosion problems, and enhancing fish. This work will compliment the improvements planned by the city of Duluth that will reduce impacts of any future floods by properly sizing bridge crossings and other infrastructure. With the coordinated stream habitat work you have proposed, the streams of Duluth could have better trout habitat than what was present even before the flood.

The DNR is pleased to support a proposal that will result in quality fishing opportunities in an urban environment like Duluth. It has been one of our agency's goals to help recruit the next generation of hunters, anglers, and conservationists in Minnesota. Providing opportunities such as trout fishing close to where people live increases the chances that kids will take up fishing as a life-long activity and, in doing so, provide a voice in support of clean water and habitat that is needed for good fishing.

Our commitment to this proposal includes providing ongoing technical assistance in the planning and design of stream habitat projects. We feel it is critical that partners such as the DNR and South Saint Louis Soil and Water Conservation District work with the city of Duluth to address the impacts to these important stream resources. Therefore, the DNR Commissioner recommends that this proposal receive serious consideration for funding from the Lessard-Sams Outdoor Heritage Fund.

Thank you for the opportunity to send this letter in support of your proposal. If you have further questions, please contact Stream Habitat Consultant Brian Nerbonne at 651-259-5205 or brian.nerbonne@state.mn.us.

Sincerely,

COPY

Edward Boggess (KDC)

Edward K. Boggess, Director
Division of Fish and Wildlife
DNR Building – 500 Lafayette Road
Saint Paul, Minnesota 55155-4020
651-259-5180

EKB/BN/jls

c Mr. Brian Nerbonne, Stream Habitat Consultant, Section of Fisheries, Division of Fish and Wildlife

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June 12, 2013

Mr. Bill Becker
Executive Director
Lessard-Sams Outdoor Heritage Fund
100 Rev. Dr. Martin Luther King Jr. Blvd.
State Office Building, Room 95
St. Paul, Minnesota 55155

RE: *Lessard Outdoor Heritage Fund Proposal to Establish a Duluth Area Stream Restoration Program.*

Dear Mr. Becker,

As one of the state's principal water quality agencies, we are pleased to offer our support for the Duluth Flood 2012: Stream Habitat Restoration Program. Many of the streams targeted for restoration in the proposal are listed as impaired on the state's Clean Water Act, 303(d) register. These restoration projects, while primarily focused on habitat improvements, will also reduce sediment and nutrient loadings, improve channel stability and contribute to healthier, more biologically productive cool water trout streams.

Very few urban areas in Minnesota have fourteen or more state designated trout streams. As resources for an urban population of over 200,000 people, these streams provide fishing and recreational opportunities on par with any metropolitan area in the United States. The streams are also significant contributors to the local economy as more and more visitors use hiking trails to find fishing spots or quiet pools to drown out the cacophony of urban noises. The streams also serve as picturesque neighborhood and business settings and places where residents catch glimpses of wildlife common in forested areas.

The June Flood of 2012 significantly damaged streams throughout Duluth and NE Minnesota. Our staff worked with a cadre of citizen and government employees in an effort to walk and visually survey Duluth's urban streams in the aftermath of the flood. Based on our observations, it is not an exaggeration to say that these streams have been fundamentally altered. Streams shifted locations, moved massive quantities of sediment, and deposited rock and boulders on floodplains and in pools and riffle areas. In some instances, the stream channel disappeared entirely below cobble and rock, with brook trout trapped in intervening pools. The massive slope failures and undermined stream banks were too numerous to count.

Mr. Bill Becker

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June 12, 2012

Our agency strongly supports this proposal and the concept of creating a long term process to support stream recovery for Duluth area cool water trout streams. It our belief that a sustained approach is necessary to design in stream resiliency and to maintain these treasures as urban trout streams for the foreseeable future.

I can be of further assistance to explain our support of this proposal, please do not hesitate to contact me. You can reach me by telephone at 218-302-6604 or by email at brian.fredrickson@state.mn.us.

Sincerely,

A handwritten signature in cursive script that reads "Brian Fredrickson".

Brian Fredrickson
Urban Streams Coordinator



John P. Lenczewski, Executive Director
Minnesota Trout Unlimited
PO Box 845
Chanhasen, MN 55317
612.670.1629
jlenczewski@comcast.net

June 13, 2013

R.C. Boheim
South St. Louis Soil and Water Conservation District
215 North 1st Ave. East
Duluth, MN 55802

In re: Trout habitat restoration on Duluth streams

Dear Mr. Boheim:

I am writing in support of efforts to improve trout habitat in and along the numerous trout streams which flow through the City of Duluth. Minnesota Trout Unlimited and our members are happy to work with you and other partners to restore these streams and ensure the best possible trout habitat is created.

As a former Duluth resident I can attest to the many stretches of good habitat and quality brook trout fishing which existed before the June 2012 flood. I have walked many reaches of these streams since the flooding and witnessed both great habitat destruction, as well as great potential to improve the fishery and angling through thoughtful habitat work. There are even opportunities in some instances to restore habitat to a better condition than existed before the flood.

We look forward to being a very active partner in this work, including helping to prioritize streams and stream reaches from a trout habitat perspective, as well as providing input on designs. Our many Duluth members are also eager to lend a hand where hand labor is an appropriate, effective component of a project.

Please let me know how I can be of further assistance in helping to secure funding for trout habitat restoration in the City of Duluth, as well as other watersheds in St. Louis County. Thank you.

Sincerely,

John P. Lenczewski